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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,143	09/09/2004	Harald Breivik	01702.403100.	9090
5514 7590 07/06/2010 FITZPATRICK CELLA HARPER & SCINTO 1290 Avenue of the Americas NEW YORK, NY 10104-3800				
EXAMINER				
DEES, NIKKI H				
ART UNIT		PAPER NUMBER		
1781				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/507,143

**Applicant(s)**

BREIVIK ET AL.

**Examiner**

Nikki H. Dees

**Art Unit**

1781

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 May 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 7-17 and 21-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-17 and 21-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 17, 2010, has been entered.
2. Claims 7-17 and 21-26 remain pending in the Application.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
4. Claims 7-12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breivik et al. (WO 00/01249).
5. Breivik et al. teach a method of farm raising fish comprising feeding them food comprising by weight 25-70 % protein, 5-60 % lipids, 0-40 % carbohydrates and 0-15 %

additional components (p. 3 lines 10-17, claim 9). The lipids in the food comprise fish oil that has been treated with urea (claim 10). The oil may be treated by heating with the urea, or by reacting the oil with a mixture of urea and water. In example 8, the oil is heated with urea and kept at 140°C for 20 minutes (Examples 5 and 8).

6. Regarding Applicant's amendments to claim 7 requiring the nitrogen-containing compound to be sufficient to reduce the susceptibility of the feed to degradation through oxidation as measured by free radicals in the feed after extrusion, it is noted that the teachings of Breivik et al. speak to their invention where oils treated by urea are less exposed to oxidation and degradation than untreated oils, resulting in a feed that may be stored longer than feed with untreated oils (p. 12 lines 18-23).

7. Breivik et al. teach that the urea is removed from the oil when the oil is pretreated (Example 7). They further teach that the urea may be added directly to the food (p. 3 lines 23-25). Additionally, the feed taught by Breivik et al. comprises antioxidants including tocopherol and ascorbic acid (Example 3).

8. Breivik et al. are silent as to their method being used for feeding a marine species. They do not specifically speak to the measurement of free radicals in the feed after extrusion.

9. The method of Breivik et al. is taught for use with farm-raised fish, specifically salmon. While salmon are not, technically, marine species, one of ordinary skill would have recognized that salmon that are farmed are living in the ocean, as are marine species of fish. One of ordinary skill would have had a reasonable expectation that a method for feeding salmon feed comprising oils treated with urea in order to reduce the

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feed's susceptibility to degradation would have had the same beneficial effects in feeding to marine species of fish. The change in the target fish for the method of farm raising salmon as taught by Breivik et al. would have been obvious to one of ordinary skill wishing to improve the stability of the feed being fed to farmed fish. There would have been no undue experimentation required to feed the feed of Breivik et al. to species other than salmon.

10. Regarding the measurement of the feed's susceptibility to degradation through ongoing oxidation as measure by the production of free radicals, as stated in *In re Best*, 562 F.2d 1252, 1255 (CCPA 1977): Where, as here, the claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes, the PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his claimed product. [citation omitted] Whether the rejection is based on "inherency" under 35 U.S.C. § 102, on "prima facie obviousness" under 35 U.S.C. § 103, jointly or alternatively, the burden of proof is the same, and its fairness is evidenced by the PTO's inability to manufacture products or to obtain and compare prior art products.

11. As the feed of the prior art is produced with oils having undergone the same process as required by the instant claims, it is considered inherent that the feed of the prior art would possess the same stability to oxidative degradation as measured by free radicals in the feed after extrusion as that of the instant invention absent convincing arguments or evidence to the contrary.

12. Claims 13, 15-17 and 21-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breivik et al. (WO 00/01249) with evidence provided by Food Day (Global Gourmet, March 7, 1997).
13. Breivik et al. teach a method for farming fish comprising feeding them a food as detailed above.
14. Breivik et al. are silent as to their method being used for fry, cod or halibut, and to the food not containing carotenoids.
15. One of ordinary skill in the art at the time the invention was made would have recognized that the carotenoids as taught in the invention of Breivik et al. were included for the purpose of imparting color to farmed salmonoids that in the wild obtain their distinctive flesh coloring from their diet. The artisan would recognize that cod and halibut are white-fleshed fish, as shown by Food Day, and therefore it would not be desirable to include carotenoids in their diet. The omission of carotenoids from the food as taught by Breivik et al. would not have required undue experimentation on the part of the artisan. Additionally, given that the protein, lipid, carbohydrate and antioxidant content of the food would remain essentially the same as that of Breivik et al., one of ordinary skill would have a reasonable expectation that the food without the carotenoids would continue to serve as an acceptable diet for all of cod, halibut and fry.

***Response to Arguments***

16. Applicant's arguments filed May 17, 2010, have been fully considered but they are not persuasive.

17. Applicant argues (Remarks, pp. 6-7) that the disclosure of Breivik is directed towards the measurement of previous oxidative damage and fails to acknowledge reducing ongoing oxidation of the feed as is present in the instant invention.

18. It remains unclear how, as Applicant contends, that the oil of the feed of Breivik, which has been treated by the same process as the oil of the instant invention prior to being combined with the feed, does not provide the same oxidative protection to the feed of Breivik as Applicants claim is present in the instant feed. One of ordinary skill would expect that oils treated by the same process prior to combining with feed would contribute in the same manner to reducing the oxidative degradation of the feed to which they were added. The failure of Breivik to comment on the ongoing oxidative damage to the feed comprising the oil that has been treated does not render the instant claims patentable over the prior art. Applicant has failed to provide convincing evidence that the feed of Breivik is not stabilized against oxidative degradation, as Applicant alleges.

19. Applicant argues that the increased storage time of the feed of Breivik is due to the stability of pigment in the feed (Remarks, p. 7).

20. Applicant appears to be overlooking the fact that the invention of Breivik has more than one objective. The first objective, as noted on p. 3 line 5 of Breivik, is to stabilize vegetable and animal oils with regard to oxidation. The second objective (p. 3 lines 8-9) is to provide a method for stabilizing pigments. At p. 12, lines 18-23, both of

these objective are referred to when it is stated "oils treated by urea and pigments which have stayed in contact with oils treated by urea are less exposed to oxidation and thereby degradation..." The increased storage time of the feed of Breivik is not exclusively due to the stability of the pigment in the feed, but due to the stability of the oils in the feeds.

21. Applicant argues that the examples of Breivik are directed to the degradation of astaxanthin (Remarks, p. 8).

22. The examiner notes the prior art references are available for all they teach, not solely for the specific examples. As a clearly stated objective of the invention of Breivik is the stabilization vegetable and animal oils with regard to oxidation, the specific examples of Breivik cited by Applicants do not render the instant invention unobvious over the teachings of the prior art.

23. Regarding the additional expense of the production of the feed using the method as taught by Breivik (Remarks, p. 8), Breivik notes the low quality of fats in aquaculture feeds due to oxidation of these fats (p. 2 lines 4-9). Therefore, one of ordinary skill would have expected any additional expense of the method of production of Breivik to be offset by the increased quality of the feed produced. Breivik also speaks to the enhanced storage stability of the feed of his invention (p. 12 lines 8-14). This increased storage stability would also have been expected to offset any additional increases in production costs, as the risk of the feed spoiling before it was consumed would have been reduced.



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24. Regarding the "new benefit" of the presently claimed invention (Remarks, p. 8), instant claim 1 requires adding an amount of oil "to reduce the feed's susceptibility to degradation..." The enhancement of the survival and/or growth rate of the marine species is not the reason the oil is added, but rather a result of such addition. Therefore, the fact that Breivik does not recognize an increased growth or survival rate of the species fed the feed of his invention does not render the claimed invention unobvious. Rather, one of ordinary skill reading the teachings of Breivik would have found it obvious to use an oil that has been stabilized in feeds for marine fish with the reasonable expectation that the inclusion of the stabilized oil would improve the stability of the feed.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikki H. Dees whose telephone number is (571) 270-3435. The examiner can normally be reached on Monday-Friday 7:30-4:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. H. D./

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Examiner  
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/Keith D. Hendricks/  
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